

Uchechukwu Melody Okechukwu

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4131 Aston Lane,
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Education

Prairie View A&M University, Prairie View, TX
Master of Science in Computer Science

Expected May 2025
GPA: 4.0

Michael Okpara University of Agriculture, Nigeria
Bachelor of Engineering in Computer Engineering

Graduated 2021
GPA: 3.4

Relevant Coursework: Commercial Programming Languages, Software Engineering, Database Management Systems, Data Structures & Algorithms, Stat learning for Big Data, AI/Machine Learning, Information Systems, Advanced Operating systems

Work and Leadership Experience

Prairie View A&M University

Prairie View, TX

Graduate Research Assistant-Machine Learning

August 2023-Present

- Enhanced programming skills for engineering students at Historically Black Colleges and Universities by implementing AI-driven personalized adaptive learning tools, utilizing semi-supervised and ensemble learning techniques in PyTorch
- Collaborate with other researchers to transfer novel research ideas/paper to Test Driven solutions using Python
- Improved model training time by 25% on a Linux-Based NVIDIA DGX Station by refactoring code adhering to DRY principle in OOP and provided comprehensive testing using PyTest/Unittest
- Architecting and deploying solutions leveraging Microsoft Azure and ASP.NET Core to facilitate real-time climate research visualization, significantly enhancing data accessibility and usability for over 100 researchers.
- Utilizing debugging tools in Visual Studio Code and Chrome DevTools to identify and resolve issues in the Research Center's web applications, reducing bug-related incidents by 40% and improving system stability and performance.
- Integrating a generative chatbot to the Research center website, using ReactJS and OpenAI API, boosting engagement by 25%, cutting support requests by 15%, significantly improving user experience and operational efficiency.

Chamsmobile Limited
Software Engineer

Lagos, Nigeria
July 2021-July2023

- Developed a secure and robust codebase for ASP.NET Web API app ensuring high performance and reliability.
- Implemented role-based authorization for restaurant owners and guests, leading to a 25% increase in security compliance and reducing unauthorized access attempts by 40%.
- Applied SOLID design principles in .NET, resulting in a 35% reduction in code complexity and a 20% improvement in code readability as measured by maintainability indexes.
- Utilized .NET's geometric topology system to calculate distances and locations with 95% accuracy, enhancing location-based services and reducing calculation errors by 30%.
- Developed unit tests in C# using NUnit/xUnit with over 90% code coverage, validating key features, Utilized Moq for effective dependency isolation.
- Implemented RESTful APIs with Spring Boot and MySQL for internal users to create, retrieve, and update Petroleum refining data with a dashboard web client
- Enhanced data retrieval and user experience by caching with Redis, reducing latency by 63% on average
- Guaranteed high availability for real-time data visualization using Kafka and integrated WebSocket with Spring
- Worked with a team of developers on an e-commerce platform (konga.com) using Angular and Django.

Technology Project

Fixit-PVAMU

- Developed a centralized issue reporting platform using Spring Boot, PostgreSQL, Shibboleth for secure login, REST APIs & SOAP for efficient data exchange. Improved operational efficiency and user experience across the university by streamlining the process for reporting and tracking facilities and IT issues

CafeView-MOUAU

- Developed a web-app using Django, React, Tailwind CSS, and PostgreSQL, achieving a 30% reduction in food waste at MOUAU cafeteria resulting in saving over \$100,000 monthly. Integrated a DialogFlow NLP chatbot to provide real-time meal information, enhancing student decision-making and increasing cafeteria foot traffic by 15%. Also, implemented an analytics dashboard to visualize consumption patterns, supporting data-driven menu planning

Certifications || Associations || Tools || Skills

Certifications: Microsoft Azure (AZ-900) || Azure AI-900 || Oracle Cloud Infrastructure Gen AI Pro.

Programming language|| Frameworks: C#, Python, Java, JavaScript, C++, React, Bootstrap4, Django, Flask, FastAPI, PySpark, SQL, NoSQL, TensorFlow, PyTorch, Jenkins Scikit-learn, Git, Linux, Docker, Kubernetes, Azure, AWS.

Skills: Problem solving, Critical thinking, Effective communication, Software programming, Team collaboration, DevOps, Software testing and debugging, Software project management, Test driven development, System design, Time management.